Before the
Federal Communications Commission
Washington, D.C. 20554

In the Matter of	)	
	)	WT Docket No. 97-153
Amendment of Part 90 of the	)	RM-8584
Commission's Rules Concerning	)	RM-8623
Private Land Mobile Radio Services	)	RM-8680
	)	RM-8734

REPORT AND ORDER

Adopted: January 28, 1999 **Released:** February 19, 1999

By the Commission:

I. INTRODUCTION AND EXECUTIVE SUMMARY

1. On August 25, 1997, the Commission released a *Notice of Proposed Rule Making ("Notice")* proposing various amendments to Part 90 of the Commission's Rules, 47 C.F.R. Part 90, regarding the Private Land Mobile Radio ("PLMR") Services.[1] The *Notice* also requested comments regarding potential interference problems resulting from shared use of the 216-217 MHz band under Parts 90 and 95 of the Rules.[2] This *Report and Order ("Report and Order")* amends Part 90 by: (1) eliminating frequency coordination requirements for five low power frequencies in the Industrial/Business Pool;[3] (2) allowing the transmission of traffic safety alerting signals in the 24.05-24.25 GHz band in the Radiolocation Service;[4] and (3) conforming construction requirements for private, non-Specialized Mobile Radio (non-

[1] Amendments to Part 90 of the Commission's Rules Concerning Private Land Mobile Radio Services, *Notice of Proposed Rule Making*, WT Docket No. 97-153, RM-8584, RM-8623, RM-8680, RM-8734, 12 FCC Rcd 13,468 (1997).

[2] *Notice*, 12 FCC Rcd at 13,476-13,478.

[3] *See* Amendment of Part 90 of the Commission's Rules to Permit the Licensing of Mobile Operations on the Frequencies 154.570 MHz and 154.600 MHz Without Prior Frequency Coordination, RM-8623. The *Notice* referred to the five frequencies as being assigned to the Business Radio Service. These frequencies have been reassigned to the Industrial/Business Pool pursuant to a consolidation plan for the Part 90 PLMR Services below 800 MHz which incorporated the Business Radio Service into the Industrial/Business Pool. *See* Replacement of Part 90 by Part 88 to Revise the Private Land Mobile Radio Services and Modify the Policies Governing Them, PR Docket No. 92-235, ("*Refarming Proceeding*"), *Second Report and Order*, 12 FCC Rcd 14,307 (1997) Recon. pending.

[4] *See* Amendment of Subparts B and F, Part 90, of the Commission's Rules to Permit the Transmission of Safety Alert Signals on Frequencies Used for Non-Government Operations, RM-8734.

SMR) systems operating in the 800 and 900 MHz bands.[5] This *Report and Order* does not take any further action on the issue of shared use of the 216-217 MHz band at this time. We believe that the rule changes adopted herein will reduce the regulatory burden on licensees and promote more efficient and flexible use of the frequency spectrum by encouraging growth of PLMR systems.[6]

II. DISCUSSION

RM-8623 - Frequency Coordination for Certain Low Power VHF Frequencies.

2. In the *Notice*, the Commission proposed that five Part 90 frequencies be made exempt from the frequency coordination requirement of Section 90.175 of the Rules, 47 C.F.R. § 90.175.[7] Section 90.35(b) of the Rules, 47 C.F.R. § 90.35(b), designates these five frequencies for low power use in the Industrial/Business Pool, and Section 90.175(a) requires frequency coordination prior to filing an application for a station license for these frequencies. Two of the frequencies, 154.570 MHz and 154.600 MHz, are commonly called "color dot" frequencies in the PLMR community and are used in low power, low-cost, entry-level, hand-held radios.[8] Because licenses for 154.570 MHz and 154.600 MHz are granted for mobile operations and do not contain station coordinates, the Commission concluded in the *Notice* that frequency coordination for these frequencies no longer served a regulatory purpose, particularly given that the frequency coordinator does not know the precise location of the user.[9] Because of the very extensive use of 154.570 MHz and 154.600 MHz, there was a great need for additional frequencies for use in low-cost, hand-held radios. Thus, in the *Refarming Proceeding*, the frequencies 151.820 MHz, 151.880 MHz, and 151.940 MHz were designated for such low power use.[10] Because it was expected that these three frequencies would be used in a manner similar to 154.570 MHz and 154.600 MHz, the *Notice* proposed deleting the coordination requirement for all five frequencies.[11]

---

[5] *See* Amendment of Part 90 of the Commission's Rules Pertaining to Loading Standards, Reporting Requirements and Construction of 800/900 MHz Private Mobile Radio Service Systems, RM-8584.

[6] A list of parties filing comments and reply comments except for those pertaining to the shared use of the 216-217 MHz band, is contained in Appendix A.

[7] *Notice*, 12 FCC Rcd at 13,471. The specific frequencies are 154.570, 154.600, 151.820, 151.880, and 151.940 MHz.

[8] Manufacturers have established the designation "Blue dot" for 154.570 MHz and "Green dot" for 154.600 MHz.

[9] *Notice*, 12 FCC Rcd at 13,470.

[10] These three frequencies are limited to a channel bandwidth of 12.5 kHz and a power output of one watt. *See* Replacement of Part 90 by Part 88 to Revise the Private Land Mobile Radio Services and Modify the Policies Governing Them, PR Docket No. 92-235, *Report and Order*, 10 FCC Rcd 10,123 (1995). Subsequently, these frequencies were made available for use by all eligibles in the newly-created Industrial/Business Pool. *See* n.2, *supra*.

[11] *Notice*, 12 FCC Rcd at 13,471.

3. Comments supporting the proposal were received from the Personal Communications Industry Association (PCIA) and the Council of Independent Communications Suppliers (CICS). No opposing comments were filed. PCIA states that it originally opposed the Petition for Rule Making regarding frequency coordination for 154.570 MHz and 154.600 MHz[12] because it believed that the suggested rule change was premature as the Commission had not yet finalized action in the *Refarming Proceeding*.[13] PCIA further states that now that the Land Mobile Communications Council ("LMCC") has filed a Low Power Pool Proposal in the *Refarming Proceeding*, it is now appropriate to consider eliminating the coordination requirement for the five frequencies. CICS supports our proposal, stating that because the frequencies in question are both low power and mobile, any interference potential would be random and unpredictable, and that frequency coordination would have no demonstrable use.[14]

4. After review of the comments on our proposal, and for the reasons stated in the *Notice*, we agree with the commenters and conclude that it would be in the public interest to remove the frequency coordination requirement for these frequencies. We therefore adopt our proposal to exempt the frequencies 151.820 MHz, 151.880 MHz, 151.940 MHz, 154.570 MHz, and 154.600 MHz from the frequency coordination requirement set forth in Section 90.175 of the Rules. We will amend our rules accordingly.

RM-8734 - Safety Alerting Signals at 24 GHz

5. We recognize that much interest has been shown in developing radio systems that would alert motorists to the presence of hazardous conditions or of a nearby emergency vehicle on a dispatched assignment. Currently, only two means are available under our rules for transmitting traffic information to motorists. Pursuant to Section 90.242, 47 C.F.R. § 90.242, local governments may use fixed Travelers' Information Station transmitters, operating in the AM broadcast band, to send messages to motorists. Secondly, Section 95.418, 47 C.F.R. § 95.418, permits Citizens Band radios to be used to transmit communications concerning highway conditions in an effort to assist travelers.

6. In response to a Petition for Rule Making filed by the Radio Association Defending Airwave Rights ("RADAR"),[15] the *Notice* proposed to amend Part 90 of the Rules to permit the use of 24.10 GHz, on a secondary basis and without additional authorization from the Commission, for transmitting safety alerting signals in a Safety Warning System ("SWS").[16] Under the proposal, the use of this frequency would be limited to licensees in the Public Safety Radio Services and the Special Emergency Radio

[12] *See* n.2, *supra*.

[13] Comments of PCIA at 3.

[14] Comments of CICS at 3.

[15] RADAR is the petitioner in RM-8734. Safety Warning Systems, L.C. ("SWS, L.C.") is the entity developing the SWS proposed in the *Notice*.

[16] *Notice*, 12 FCC Rcd at 13,472-13,473. The frequency 24.10 GHz is in the 24.05-24.25 GHz band which is allocated to the Radiolocation Service, 47 C.F.R. § 90.103. This type of authorization would be the same as now provided to public safety entities for the use of traffic radar guns. *See* 47 C.F.R. § 90.20(f)(4).

Service.[17] In the SWS, local government authorities could install specifically designed transmitters operating on 24.10 GHz near highway construction areas, bridges under repair, flooded areas, railroad crossings, and other potentially hazardous locations. Transmitters also could be installed in emergency vehicles (*e.g.*, ambulances, police and fire vehicles). These transmitters would send a signal that would activate a motorist's radar detector and alert the motorist by audible and visual means to various specific hazardous driving conditions, as well as the presence of a nearby emergency vehicle on a dispatched assignment.[18] In response to the *Notice*, thirty-three comments were filed regarding the proposals for the transmission of traffic safety alerting signals.

7. Thirty supporting comments were received from public safety and state transportation entities, state and Federal legislators, industry representatives, and individuals either concerned with and/or active in traffic safety issues. Comments in support of the Commission's proposal generally point out the benefits that the motoring public would immediately obtain from being able to receive alerting messages regarding inclement weather, traffic accidents, construction zones, and similar potential traffic hazards.[19]

8. Opposing comments focus on three basic arguments. The first argument is that the SWS, operating in the same frequency band as police traffic radar, would encourage further use of radar detectors by motorists for the purpose of avoiding speeding citations. For example, the International Association of Chiefs of Police ("IACP") claims that the use of safety warning receivers operating in a frequency band used by police traffic radar: (1) will encourage disobedience of speed limits; (2) may be in conflict with Federal and state regulations prohibiting the use of radar detectors; and (3) may pose an increased risk to emergency workers and motorists.[20] Similarly, the National Association of Governor's Highway Safety Representatives ("NAGHSR") contends that the proposal will serve marginal safety interests at best and is a way to legitimize the use of radar detectors by motorists.[21] The United States

---

[17] The Public Safety Radio Services and the Special Emergency Radio Service have been combined into a Public Safety Radio Pool as a result of the decisions in the *Refarming Proceeding, Second Report and Order*. *See* n.2, *supra*.

[18] RADAR Petition at 4-5. The SWS is now being tested under a Part 5 Experimental License granted to SWS, L.C.. To date, SWS transmitters are being used in twenty six states by local government entities to transmit safety alerting signals. It is estimated that over two million combination radar detectors and SWS receivers are being used by motorists today.

[19] Representative supporting comments include those of Senator Douglas A. Kristensen, Nebraska State Legislature, who writes, "[O]f particular interest to me is the concept proposed to use existing technology to immediately alert large segments of public and private highway users to specific transportation hazards. ... I cannot imagine a more efficient bridge between our present transportation system and the safer (intelligent) systems we all hope to travel in [the] not too distant future." *See* Comments of Senator Douglas A. Kristensen at 1-2. Similarly, Mr. Dale T. Smith, Engineer, comments that the proposed alerting system "utilizes an already installed base of technology and will not require the ten to fifteen year lead time estimated to be required before the first generation Intelligent Transportation System (ITS) emerging highway safety system is available to achieve market penetration at a level to be effective." Comments of Dale T. Smith at 1 (referring to a system under development by the U.S. Department of Transportation). Broward County, Florida, comments that it has been evaluating a SWS transmitter installed in a rescue ambulance and notes that assigned personnel confirm that motorists appear to have an increased awareness of the emergency vehicle. *See* Comments of Broward County, Florida at 1.

[20] Comments of IACP at 3.

[21] Comments of NAGHSR at 1.

Department of Transportation ("DOT") also presents a similar argument, claiming that the proposal is unlikely to enhance the safety of motorists, and undercuts that safety by promoting the widespread deployment of a device whose primary use is to facilitate unlawful speeds without detection.[22]

9. In its reply comments, SWS, L.C. contends that such arguments are presented by entities that are opponents of radar detectors and focus almost entirely on the alleged potential increase in the use of radar detectors by motorists to avoid speeding tickets, while the proposal in the *Notice* concerns the development of a safety warning system which initially would take advantage of the technology in the existing over 20 million radar detectors used by the motoring public.[23] SWS, L.C. asserts that the proposal in the *Notice* would neither legitimize or promote the use of radar detectors as argued by NAGHSR and IACP.[24] Further, SWS, L.C. states that the DOT opposition to the SWS "is largely based on its assumption that the safety warning system receivers are basically radar detectors. While that is true for early-generation safety warning system receivers -- which are already in use by consumers -- future products will not incorporate the circuitry required for the device to function as a radar detector. This fact mitigates against the antipathy [local safety authorities] have expressed for radar detectors."[25]

10. The second argument is that the SWS poses a potential interference threat to police traffic radar operation. DOT is the sole commenter expressing concern that the proposed SWS may subject police speed enforcement to interference.[26] SWS, L.C. replies that, in fact, operation of the proposed system on 24.10 GHz would not result in any significant increased potential for interference to police radars.[27] SWS, L.C. further states that extensive tests by the Georgia Tech Research Institute concluded that there will be no interference to police radar operations when a safety warning transmitter is operated in a manner consistent with the operating practices that are stressed by the DOT's National Highway Traffic Safety Administration in its Police Radar Operator Training Course.[28]

11. The third argument is that the Intelligent Transportation Services ("ITS") will have many of the same capabilities as the SWS. NAGHSR further comments that the ITS program will address many of the same safety policy concerns raised by RADAR in its Petition, and that it sees no reason to support a simplistic warning system of questionable efficacy when a sophisticated one is being developed with

---

[22] Comments of DOT at 1.

[23] Two types of radar detectors are being marketed today. One type is capable of only indicating that it has received a radar signal. MPH Industries ("MPH") claims that there are about 20 million of such detectors in use and that they will respond to a SWS signal, thus getting the motorist's attention in the same manner as a police radar signal. The second type is the SWS capable detector which provides visual and/or audible indications for both traffic radar and 64 safety warning system signals. MPH states that over two million SWS capable receivers have been sold over the past year and one-half. *See* Comments of MPH at 3.

[24] Reply Comments of SWS, L.C. at 3- 4.

[25] *Id.* at 10.

[26] Comments of DOT at 3.

[27] Reply Comments of SWS, L.C. at 8.

[28] *Id. See also* Supplementary Comments and Attachment A, filed by RADAR in support of its Petition for Rule Making, RM-8734.

millions of Federal dollars.[29] DOT states that it supports wireless communications services that enhance transportation safety without compromising it. DOT argues that such support is evidenced by its comments on a petition submitted to the Commission by the Intelligent Transportation Society of America that seeks to have spectrum set aside for technology known as Dedicated Short Range Communications, which includes similar functions to those to be provided by the proposed SWS. [30]

12. We acknowledge the differing views presented concerning the legitimacy of and purpose for which motorists use radar detectors. However, after review of the record on this issue, we do not concur with the argument that proponents of the SWS are utilizing the system as a way to legitimize the use of radar detectors. We believe that the SWS will increase traffic safety by providing local governments and public safety eligibles with a new, technologically advanced, and economical means for alerting motorists to hazardous driving conditions. We also believe that serious consideration should be given to the fact that there are 20 million plus radar detectors now being used by the American motoring public which can be used immediately to receive the benefits of safety warning messages.[31] Further, as indicated by SWS, L.C., we expect that future SWS receivers will not be capable of functioning as a radar detectors, but will respond only to SWS alerting signals. We conclude, therefore, that because future SWS receivers will not respond to police traffic radar signals, the argument that the SWS is a way to legitimize the use of radar detectors is not sufficiently persuasive for us to reject the realization of the potential public interest benefits presented by the proposed SWS.

13. With respect to the issue of the SWS causing interference to police traffic radar operations, the test results conducted by the Georgia Tech Research Institute, as mentioned above, indicate that with proper operation of closely-located traffic radar and SWS transmitters, interference will not be experienced.[32] No commenters challenged these results. Additionally, because the proposal in the *Notice* was to limit the use of the SWS frequency -- 24.10 GHz -- to only public safety entities, *i.e.*, eligibles in the Public Safety Radio Pool, we believe that any public safety agency using both traffic radar and SWS transmitters would take the necessary precautions to minimize any potential interference from one system to the other.

14. Finally, we concur that the ITS, when fully implemented, may provide motorists with certain similar capabilities as the SWS. The SWS is one of many ITS-related technologies that are currently being developed and tested with the promise of reducing highway congestion and delay while enhancing safety. We note that on June 9, 1998, $2.1 million in Federal funding was approved for grants to state

---

[29] Comments of NAGHSR at 2.

[30] Comments of DOT at 4. We note here that the Commission has recently released a Notice of Proposed Rule Making which proposes to allocate spectrum for short-range radio systems to transfer information between vehicles and roadside systems. *See* Amendment of Parts 2 and 90 of the Commission's Rules to Allocate the 5.850-5.925 MHz Band to the Mobile Service for Dedicated Short Range Communications of Intelligent Transportation Services, ET Docket No. 98-95, RM-9096, *Notice of Proposed Rule Making*, FCC 98-119 (rel. June 11, 1998) ("*DSRC Notice*").

[31] SWS, L.C. has informally indicated that the SWS is now being implemented in New Zealand and the Netherlands, that it has just recently signed an agreement to permit its implementation in many countries that were states of the former Soviet Union, and that it believes that a U.S. developed system should be made available to the American public.

[32] *See* n.28, *supra.*.

and local governments to permit further studies and testing of the SWS.[33] Considering this support now given the SWS by the Federal Government, we believe that our proposal to permit the use of 24.10 GHz for the SWS, along with the fact that the SWS technology is already employed in over 2 million receivers, will provide immediate benefits without the motoring public having to wait possibly 10-15 years for the development and implementation of future ITS technology.

15. While SWS, L.C. notes that the proposal in the *Notice* confines the authority to operate the safety warning transmitters to public safety licensees, it believes that the objectives underlying the proposal would be more fully achieved by also authorizing railroad entities to operate safety warning transmitters on locomotives or near railroad crossings.[34] SWS, L.C. states that in 1993 alone, there were more than 4000 accidents at railroad crossings that involved motor vehicles, and that many of those accidents may have been prevented by alerting motorists who are about to cross a railroad crossing, that a train is approaching.[35] Comments supporting railroad use of safety warning transmitters were submitted by Vermont Railway, Inc. and the Clarendon & Pittsford Railroad Company, who state that the safety of crews and passengers, cargo protection, avoidance of derailments, damage to operating equipment, and the prevention of motorists' deaths are pressing safety concerns, and that the SWS would give them an edge in preventing motor vehicles from colliding with trains.[36] We fully concur with the comments supporting railroad use of SWS transmitters. We, therefore, adopt rules to permit licensees in the Part 90 Public Safety Radio Pool to use, on a secondary basis and without additional authorization from the Commission, 24.10 GHz for the purpose of transmitting safety alerting signals. We also are extending the authorization to utilize 24.10 GHz, under the same conditions, to railroad licensees in the Industrial/Business Radio Pool.

16. *Traffic Light Control.* In the *Notice*, on its own motion, the Commission also proposed to permit, on a secondary basis and without additional authorization from the Commission, the use of Radiolocation Service frequencies in the 24.20-24.25 GHz portion of the 24.05-24.25 GHz band in public safety emergency vehicles to control traffic lights to facilitate a "clear route" for a vehicle on an emergency run or to activate a flashing (strobe) light located on the traffic signal to warn motorists of the presence of an emergency vehicle in the vicinity of the traffic light.

17. Six comments were received regarding this proposal.[37] IMSA/IAFC state that many governmental agencies represented by IMSA's and IAFC's memberships have been in the process of or are interested in developing and implementing communications systems that allow "traffic signal pre-emption."[38] IMSA/IAFC further state that although some traffic signal pre-emption systems have been deployed in other frequency bands and in other modes (*e.g.*, through the use of optical emitters or audible

---

[33] Transportation Equity Act for the 21st Century, Pub. L. 105-178, Sec.5117.

[34] Comments of SWS, L.C. at 3.

[35] Comments of SWS, L.C. at 3.

[36] Joint Comments of Vermont Railway, Inc. and Clarendon & Pittsford Railroad Company at 2.

[37] Comments in support were filed by the International Municipal Signal Association jointly with the International Association of Fire Chiefs ("IMSA/IAFC"), MPH Industries ("MPH"), and Jarrell F. Nowlin. Opposing comments were filed by SWS, L.C., RADAR, and Teligent L.L.C. ("Teligent").

[38] Comments of IMSA/IAFC at 4.

detectors), IMSA/IAFC believe that the use of the 24 GHz band for this purpose would encourage the development of new systems that would be more cost-effective and/or technologically feasible.[39] MPH expresses support for the proposal, stating that the basic technology necessary to control traffic systems directly from emergency vehicles is fully developed.[40]

18. SWS, L.C. opposes the proposal, stating that signals in the 24.20-24.25 GHz band transmitted to change traffic lights would activate radar detectors in the vicinity because the 20 million detectors now in the hands of the public detect signals in the entire 24.05-24.25 GHz band. SWS, L.C. argues that such triggering could result in confusion on the part of the motorists and could lead to loss of confidence in the SWS. SWS, L.C. suggests, therefore, that the transmission of signals for traffic light control purposes can be included as another function of an SWS transmitter.[41] RADAR states that it is familiar with the comments filed by SWS, L.C., and fully concurs with those comments.[42] Teligent argues that a proliferation of traffic light control transmitters in the 24 GHz band could cause harmful interference to operations in the Digital Electronic Message Service ("DEMS") because the required frequency stability of the traffic light control transmitters could cause them to drift into the adjacent DEMS band.[43]

19. After review of the comments regarding the use of frequencies in the 24.20-24.25 GHz band for traffic light control, we decline to adopt the proposal presented in the *Notice*. Three of the six commenters were against the proposal and may have other alternatives to solve this problem without complicating the 24 GHz band. We agree with Teligent that there could be potential interference to DEMS operations. We do not agree with SWS, L.C.'s opposition argument, referenced above, that motorists would become confused if their existing radar detectors were triggered by such transmissions and would, therefore, lose confidence in the SWS. This statement appears contrary to SWS, L.C.'s claim that because SWS transmissions can be received by these same radar detectors, such alerting would make those motorists with older radar detectors aware of the presence of some type of traffic hazard.[44] Further, as IMSA/IAFC point out, other means of traffic light control that use optical emitters and audible detectors are already in use.[45] Finally, we recently have proposed the Dedicated Short Range Communications System of the ITS to implement traffic control, transit vehicle signal priority, and emergency vehicle traffic signal pre-emption systems.[46] We, therefore, decline to adopt our proposal to permit use of the 24.20-24.25 GHz band for the transmission of traffic light control signals.

---

[39] *Id.* at 5.

[40] Comments of MPH at 3.

[41] Comments of SWS, L.C. at 5.

[42] Comments of RADAR at 1.

[43] Comments of Teligent at 2-3. DEMS operation is in the 24.25-24.45 GHz and 25.05-25.25 GHz bands.

[44] *See* para. 8 and n.24, *supra*. Additionally, in its Reply Comments at 9-10, SWS, L.C. reiterates this position by stating that studies have demonstrated that activation of a radar detector by a "drone" transmitter caused motorists to reduce speed and become more aware of the traffic situation around them.

[45] Comments of IMSA/IAFC at 5.

[46] *See DSRC Notice*, Appendix B.

RM-8584 - 800 and 900 MHz Loading, Reporting, and Construction Requirements

20. We did not make specific proposals in the *Notice* regarding loading and reporting requirements for 800 and 900 MHz licenses. However, to foster consistency in our Rules, we proposed in the *Notice* to extend the construction period -- the time in which a system must be placed in operation -- for all conventional 800 and 900 MHz systems from eight months to twelve months.[47] Comments in support of our proposal were received from PCIA and the Industrial Telecommunications Association ("ITA"). PCIA states that there is no rational basis for subjecting non-SMR conventional systems to the shorter construction period requirement, and that our proposal would make the Rules consistent for all 800 MHz and 900 MHz systems.[48] ITA expresses similar support.[49] In view of the support for our proposal, we are, for the reasons we advanced in the *Notice*, amending Sections 90.633(c) and (d) of our Rules, 47 C.F.R. §§ 90.633(c) and (d), to permit a one-year construction period for all 800 and 900 MHz conventional systems.

III. CONCLUSION

21. In this *Report and Order*, we adopt rule changes that will reduce the regulatory burden on licensees by eliminating certain frequency coordination requirements and conforming construction period times for systems operating in the 800 and 900 MHz bands. We also permit public safety and railroad licensees to utilize the frequency 24.1 GHz for the transmission of traffic safety alerting signals so that motorists with appropriate receivers can be given warning of impending traffic hazards, weather conditions, and the presence of nearby emergency vehicles. We believe this action will further the public interest by enabling licensees to improve radio system efficiencies at less cost and without imposing an additional licensing burden on either licensees or the Commission.

IV. PROCEDURAL MATTERS

Final Regulatory Flexibility Analysis

22. A Final Regulatory Flexibility Analysis has been prepared and is included in Appendix B.

Alternative Formats

23. Alternative formats (computer diskette, large print, audio cassette and Braille) are available to persons with disabilities by contacting Martha Contee at (202) 418-0260, TTY (202) 418-2555, or at mcontee@fcc.gov. This *Report and Order* can also be downloaded at http://www.fcc.gov/dtf/.

[47] Section 90.631(e) of our Rules currently requires that a trunked system be constructed within twelve months, and Section 90.633(c) requires that a conventional system be placed in operation within eight months of the license grant. *See* 47 C.F.R. §§ 90.631(e) and 90.633(c).

[48] Comments of PCIA at 2.

[49] Comments of ITA at 6.

Ordering Clauses

24. Accordingly, IT IS ORDERED that, pursuant to the authority of Sections 4(i), 303(r), and 332(a)(2) of the Communications Act of 1934, as amended, 47 U.S.C. §§ 154(i), 303(r), and 332(a)(2), Part 90 of the Commission's Rules, 47 C.F.R. Part 90 IS AMENDED as set forth in the attached Appendix C.

25. IT IS FURTHER ORDERED that the rule changes adopted herein will become effective [thirty days after publication in the Federal Register].

26. IT IS FURTHER ORDERED that the Commission's Office of Public Affairs, Reference Operations Division, SHALL SEND a copy of this *Report and Order*, WT Docket No. 97-153, including the Final Regulatory Flexibility Analysis, to the Chief Counsel for Advocacy of the Small Business Administration.

FEDERAL COMMUNICATIONS COMMISSION

Magalie Roman Salas

Magalie Roman Salas
Secretary

APPENDIX A

Comments Submitted in WT Docket No. 97-153

RM-8584 - 800/900 MHz Loading, Reporting, and Construction
Personal Communications Industry Association
Industrial Telecommunications Association

RM-8623 - Frequency Coordination, 154.570/154.600 MHz
Personal Communications Industry Association
Council of Independent Communications Suppliers

RM-8734 - Safety Alerting Signals at 24 GHz
BEL-Tronics Limited
Broward County Human Services Department
Cumberland Gap Tunnel Authority
Cybortech, Inc.
David F. Gantt, Assemblyman, State of New York
International Association of Chiefs of Police
International Municipal Signal Association and
The International Association of Fire Chiefs, Inc.
Senator John F. Kerry
Rep. Don Koller, Missouri House of Representatives
Senator Douglas A. Kristensen, Nebraska State Legislature
Massachusetts Governor's Highway Safety Bureau (filed late, accepted)
MPH Industries , Inc.
National Association of Governor's Highway Safety Representatives
Giffen B. Nickol
Jarrell F. Nowlin
Anthony Otis
Richard C. Pembroke, Sr., Vermont House of Representatives
Radio Association Defending Airwave Rights
Risk Probe, Inc.
Safety Warning Systems L.C.
Sanyo Technica USA, INC.
Rep. George Schiavone, Vermont House of Representatives
Jay J. Schreiber
Congressman Bud Shuster
David B. Sloan
Dale T. Smith
Gene Snyder
Sunkyong America, Inc.
Teligent L.L.C.
John Tomerlin
United States Department of Transportation
Vermont Agency of Transportation
Vermont Railway/Clarendon & Pittsford Railroad Company
Whistler Corporation

Reply Comments submitted in WT Docket No. 97-153

RM-8734
Radio Association Defending Airwave Rights
Safety Warning Systems, L.C.

Additional Filings

RM-8734
Safety Warning System, L.C. (Ex parte presentation)

APPENDIX B

Final Regulatory Flexibility Analysis

As required by the Regulatory Flexibility Act ("RFA"),[50] an Initial Regulatory Flexibility Analysis ("IRFA") was incorporated in the *Notice*.[51] The Commission sought written public comment on the proposals in the *Notice*, including comment on the IRFA. This present Final Regulatory Flexibility Analysis ("FRFA") conforms to the RFA.[52]

A. Need for, and Objectives of, the Adopted Rules:

1. To reduce regulatory requirements, the Commission has adopted rules to: (1) amend Part 90 of its rules to increase the construction period applicable to non-Specialized Mobile Radio, 800 and 900 MHz land mobile radio systems from eight months to one year; (2) delete the frequency coordination requirement before a station can be licensed for mobile operation on five low power frequencies in the 150-174 MHz band; and (3) permit the use of frequencies in the Radiolocation Service 24.05-24.25 GHz band for the transmission of alerting signals to warn motorists of hazardous driving conditions. These rules changes will permit licensees more time to construct their systems, and will promote more flexible use of land mobile spectrum. We believe these changes will encourage growth of land mobile systems and enhance telecommunications offerings for consumers, producers and new entrants.

B. Summary of Significant Issues Raised by Public Comments in Response to the IRFA.

2. No comments were submitted specifically in response to the IRFA. We expect, however, that our actions will benefit all entities subject to these rule changes, including small businesses. *See* paragraph 8, *infra.*

C. Description and Estimate of the Number of Small Entities to Which Rules Will Apply:

3. The RFA directs agencies to provide a description of and, where feasible, an estimate of the number of small entities that may be affected by the proposed rules, if adopted. The RFA generally defines the term "small entity " as having the same meaning as the terms "small business," "small organization," and "small governmental jurisdiction." In addition, the term "small business" has the same meaning as the term "small business concern" under the Small Business Act. A small business concern is one which: (1) is independently owned and operated; (2) is not dominant in its field of operation; and (3) satisfies any additional criteria established by the Small Business Administration (SBA).

4. The adopted rules apply to businesses and local government entities that operate radio systems for their own internal use in the PLMR services. PLMR systems serve an essential role in a vast range of industrial, business, land transportation, and public safety activities. These radios are used by

---

[50] See 5 U.S.C. § 603. The RFA, see 5 U.S.C. § 601 et. seq., has been amended by the Contract With America Advancement Act of 1996, Pub. L. No. 104-121, 110 Stat. 847 (1996) (CWAAA). Title II of the CWAAA is the Small Business Regulatory Enforcement Fairness Act of 1996 (SBREFA).

[51] *See* Amendments to Part 90 of the Commission's Rules Concerning Private Land Mobile Radio Services, WT Docket No. 97-153, *Notice of Proposed Rule Making*, Appendix A.

[52] See 5 U.S.C. § 604.

companies of all sizes operating in all U.S. business categories. Because of the vast array of PLMR users, the Commission has not developed nor would it be possible to develop a definition of small businesses specifically applicable to PLMR users. Therefore, for the purpose of determining whether a licensee is a small business as defined by the Small Business Administration (SBA), each licensee would need to be evaluated within its own business area. Therefore, the appropriate definition for PLMRS small businesses is SBA's definition for radiotelephone (wireless) companies. That definition provides that a small entity is a radiotelephone company employing no more than 1,500 persons.

5. We sought comment on the number of small businesses which could be impacted by the proposed rules. We noted that the Commission's 1994 Annual Report indicates that at the end of fiscal year 1994 there were approximately 292,000 PLMR stations and 5.4 million transmitters operating in the 800, 900 MHz and 24 GHz bands.[53] Further, because any entity engaged in a business activity is eligible to hold a PLMR license, the adopted rules could potentially impact every small business in the U.S. There are far fewer than 292,000 licensees among the 292,000 PLMR stations. We do not have data specifying the number of these licensees that have 1,500 employees or fewer and are not dominant in their field of operation, and thus are unable at this time to estimate with greater precision the number of such entities that might qualify as small business concerns under the SBA's definition. In reality, however, the number of small businesses affected by the change in the construction period rule and the elimination of the frequency coordination requirement for five VHF low power frequencies, is expected to be very small.

6. As noted, the RFA also includes small governmental entities as a part of the regulatory flexibility analysis.[54] The definition of a small governmental entity is one with a population of less than 50,000.[55] There are 85,006 governmental entities in the nation.[56] This number includes such entities as states, counties, cities, utility districts, and school districts. There are no figures available on what portion of this number has populations of fewer than 50,000. However, this number includes 38,978 counties, cities, and towns, and of those, 37,566, or 96 percent, have populations of fewer than 50,000.[57] The Census Bureau estimates that this ratio is approximately accurate for all governmental entities. Thus, of the 85,006 governmental entities, we estimate that 96 percent, or 81,600 are small entities that may be affected by our adopted rule to permit public safety licensees (local government entities) to use the frequency 24.1 GHz for transmitting traffic safety alerting signals. The decision whether or not to use this frequency would be made by each local governmental agency.

D. Description of Projected Reporting, Recordkeeping and Other Compliance Requirements:

7. The extension of the construction period from 8 to 12 months for 800 and 900 MHz non-Specialized Mobile Radio licensees will ease the regulatory burden on these licensees. The deletion of the frequency coordination requirement for certain frequencies in the 150-174 MHz band will eliminate

---

[53] *See* Federal Communications Commission, 60th Annual Report, Fiscal Year 1994 at 120-121.

[54] *See* 5 U.S.C. § 601(5) (including cities, counties, towns, townships, villages, school districts, or special districts).

[55] *Id.*

[56] 1992 Census of Governments, U.S. Bureau of the Census, U.S. Department of Commerce.

[57] *Id.*

the frequency coordination fees that applicants were required to pay before receiving a license from the Commission. No new requirements would be imposed as a result of the actions adopted in this rule making proceeding. Thus, costs to certain applicants for the preparation and filing of license applications would be reduced.

E. Steps Taken to Minimize Significant Economic Impact on Small Entities and Significant Alternatives Considered.

8. In the IRFA, we indicated that an alternative to our proposed rule to extend the construction period from 8 months to 12 months for 800 and 900 MHz non-SMR licensees would be to permit a longer than 12 month construction period for small entities. We requested comments on whether a longer construction period is necessary for small entities or whether the current waiver process is sufficient. No comments were submitted in response to our request. No commenters raised any alternatives to any of our proposals. We believe that changing from an eight month to a twelve month construction period will ease the regulatory burden on small businesses by reducing the need for small business to request extensions of the construction period.

Report to Congress: The Commission will send a copy of this *Report and Order*, WT Docket No. 97-153, including this FRFA, in a report to be sent to Congress pursuant to the Small Business Regulatory Enforcement Fairness Act, *see* 5 U.S.C. § 801(a)(1)(A). In addition, the Commission will send a copy of the *Report and Order*, WT Docket No. 97-153, including the FRFA, to the Chief Counsel for Advocacy of the Small Business Administration. A summary of the *Report and Order*, WT Docket No. 97-153, including the FRFA, will also be published in the Federal Register. *See* 5 U.S.C. § 604(b).

APPENDIX C

Part 90 of Chapter 1 of Title 47 of the Code of Federal Regulations is amended as follows:

PART 90 - PRIVATE LAND MOBILE RADIO SERVICES

1. The authority citation for Part 90 continues to read as follows:

Authority citation: Sections 4, 303, and 332, 48 Stat. 1066, 1082, as amended: 47 U.S.C. 154, 303, and 332, unless otherwise noted.

2. Section 90.20 is amended by revising paragraph (f)(4) to read as follows:

§ 90.20 Public Safety Pool.

* * * * *

(f) * * *

(4) A licensee of a radio station in this service may operate radio units for the purpose of determining distance, direction, speed, or position by means of a radiolocation device on any frequency available for radiolocation purposes without additional authorization from the Commission, provided type accepted equipment or equipment authorized pursuant to §§ 90.203(b)(4) and (b)(5) is used, and all other rule provisions are satisfied. A licensee in this service may also operate, subject to all of the foregoing conditions and on a secondary basis, radio units at fixed locations and in emergency vehicles that transmit on the frequency 24.10 GHz, both unmodulated continuous wave radio signals and modulated FM digital signals for the purpose of alerting motorists to hazardous driving conditions or the presence of an emergency vehicle. Unattended and continuous operation of such transmitters will be permitted.

3. Section 90.35 is amended by adding paragraph (d)(7) to read as follows:

§ 90.35 Industrial/Business Pool.

* * * * *

(d) * * *

(7) A railroad licensee, *i.e.*, a licensee eligible for frequencies listed in § 90.35(b)(3) that are coordinated by the railroad coordinator (LR), may operate radio units at fixed locations and in moving railroad locomotives/cars that transmit on the frequency 24.10 GHz, both unmodulated continuous wave radio signals and modulated FM digital signals for the purpose of alerting motorists to the presence of an approaching train. Unattended and continuous operation of such transmitters will be permitted without additional authorization from the Commission, provided type accepted equipment or equipment authorized pursuant to §§ 90.203(b)(4) and (b)(5) is used, and all other rule provisions are satisfied.

4. Section 90.103 is amended by revising paragraph (c)(22) to read as follows:

§ 90.103 Radiolocation Service.

* * * * *

(c) * * *

(22) For frequencies 2455 MHz, 10,525 MHz, and 24,125 MHz, only unmodulated, continuous wave (NON) emission shall be employed. The frequency 24.10 GHz, and frequencies in the 24.20-24.25 GHZ band may use NON emission along with an ancillary FM digital emission. The frequency 24.10 GHz will be used for the purpose of alerting motorists of hazardous driving conditions and the presence of emergency vehicles. Equipment operating on 24.10 GHz must keep the deviation of the FM digital signal within $\pm$ 5 MHz. Equipment operating on this frequency must have a frequency stability of at least 2000 ppm and is exempt from the requirements of §§ 90.403(c), 90.403(f), and 90.429.

5. Section 90.175 is amended by revising paragraph (f)(5) to read as follows:

§ 90.175 Frequency coordination requirements.

* * * * *

(f) * * *

(5) Applications in the Industrial/Business Pool requesting a frequency designated for itinerant operations, and applications requesting operation on 154.570 MHz, 154.600 MHz, 151.820 MHz, 151.880 MHz, and 151.940 MHz.

* * * * *

6. Section 90.633 is amended by revising paragraphs (c) and (d) to read as follows:

§ 90.633 Conventional systems loading requirements.

* * * * *

(c) Except as provided in Section 90.629, licensees of conventional systems must place their authorized stations in operation not later than one year after the date of grant of the system license.

(d) If a station is not placed in operation within one year, except as provided in Section 90.629, the license cancels automatically. For purposes of this section, a base station is not considered to be in operation unless at least one associated mobile station is also in operation.

7. Section 90.651 is amended by revising paragraph (c) to read as follows:

§ 90.651 Supplemental reports required of licensees authorized under this subpart.

* * * * *

(c) Licensees of conventional systems must report the number of mobile units placed in operation within twelve months of the date of the grant of their license. Such reports shall be filed within 30 days from that date.

* * * * *